CLAIMS

[1] A display device comprising:

a display panel having surface arrays of plural pixels for displaying an image by light radiation control on a pixel to pixel basis;

an electronic component forming a control circuit configured to perform said light radiation control;

a casing housing said display panel and said electronic component therein; and

a flat heat-conductive sheet interposed between said display panel and said casing and between said electronic component and said casing.

[2] The display device according to claim 1, wherein said heat-conductive sheet and at least one of said display panel and said electronic component are arranged to allow heat transfer to occur therebetween through first heat transfer means.

[3] The display device according to claim 2, wherein the first heat transfer means are first heat transfer members interconnecting said heat-conductive sheet and at least one of said display panel and said electronic component.

[4] The display device according to claim 2, wherein the first heat transfer means have a first radiator member joined to at least one of said display panel and said electronic component, and a second radiator member joined to said heat-

conductive sheet, said first radiator member being configured to radiate heat, said second radiator member being configured to absorb the heat radiated from said first radiator member.

[5] The display device according to any one of claims 1 to 4, wherein a back member is provided on a rear of said display panel so as to extend along the plane of a rear surface of said display panel.

[6] The display device according to claim 5, wherein said heat-conductive sheet and at least one of said back member and said electronic component are arranged to allow heat transfer to occur therebetween through second heat transfer means.

[7] The display device according to claim 6, wherein the second heat transfer means are second heat transfer members interconnecting said back member and said heat-conductive sheet.

[8] The display device according to claim 6, wherein the second heat transfer means have a third radiator member joined to said back member, and a fourth radiator member joined to said heat-conductive sheet, said third radiator member being configured to radiate heat, said fourth radiator member being configured to absorb the heat radiated from said third radiator member.

[9] The display device according to any one of claims 1 to 8, wherein said heat-conductive sheet has a higher thermal conductivity in a plane thereof than in a thickness wise

direction thereof.

[10] The display device according to claim 9, wherein said heat-conductive sheet comprises graphite.

[11] The display device according to claim 2, wherein when said casing is vertically equally divided into an upper half and a lower half, the sum total of minimum cross-sectional areas of the first heat transfer means which are disposed in the lower half of said casing is larger than the sum total of minimum cross-sectional areas of the first heat transfer means which are disposed in the upper half of said casing, the cross-sectional areas being the areas of cross sections of the first heat transfer means as viewed in the direction perpendicular to a heat transfer direction toward said casing.

[12] The display device according to claim 11, wherein a numerical value obtained by dividing the sum total of minimum cross-sectional areas of the first heat transfer means which are disposed in the lower half of said casing by the sum total of minimum cross-sectional areas of the first heat transfer means which are disposed in the upper half of said casing is not less than 1.5.

[13] The display device according to claim 11 or 12, wherein the first heat transfer means are rod members each having one end contacting at least one of said display panel and said electronic component and an opposite end contacting said heat-conductive sheet.

[14] The display device according to claim 11 or 12, wherein the first heat transfer means are annular members each having a first portion contacting at least one of said display panel and said electronic component, a second portion contacting said heat-conductive sheet, and other portion than said first and second portions which is positioned to allow heat transfer to occur between said heat-conductive sheet and at least one of said display panel and said electronic component.

[15] The display device according to claim 6, wherein when said casing is vertically equally divided into an upper half and a lower half, the sum total of minimum cross-sectional areas of the second heat transfer means which are disposed in the lower half of said casing is larger than the sum total of minimum cross-sectional areas of the second heat transfer means which are disposed in the upper half of said casing, the cross-sectional areas being the areas of cross sections of said second heat transfer means as viewed in the direction perpendicular to a heat transfer direction toward said casing.

[16] The display device according to claim 15, wherein a numerical value obtained by dividing the sum total of minimum cross-sectional areas of the second heat transfer means which are disposed in the lower half of said casing by the sum total of minimum cross-sectional areas of the second heat transfer means which are disposed in the upper half of said casing is

not less than 1.5.

[17] The display device according to claim 15 or 16, wherein the second heat transfer means are rod members each having one end contacting at least one of said display panel and said electronic component and an opposite end contacting said heat-conductive sheet.

[18] The display device according to claim 15 or 16, wherein the second heat transfer means are annular members each having a first portion contacting at least one of said display panel and said electronic component, a second portion contacting said heat-conductive sheet, and other portion than said first and second portions which is positioned to allow heat transfer to occur between said heat-conductive sheet and at least one of said display panel and said electronic component.

[19] The display device according to any one of claims 11 to 18, wherein said casing is provided with a first vent hole in the lower half thereof and a second vent hole in the upper half thereof.

[20] The display device according to claim 19, wherein said first vent hole is an air intake hole for taking air into said casing, while said second vent hole is an air exhaust hole for exhausting air out of said casing.

[21] The display device according to any one of claims 11, 12, 15 and 16, further comprising a support member holding said display panel via a back member provided on a rear of

said display panel, and third heat transfer means configured to allow heat transfer to occur between the back member and said support member, said third heat transfer means forming part of said support member.

[22] The display device according to any one of claims 11, 12, 15 and 16, further comprising a support member holding said display panel via a back member provided on a rear of said display panel, and fourth heat transfer means interconnecting the back member and said support member.

[23] The display device according to any one of claims 11 to 22, wherein said first heat transfer means have a thermal conductivity of not less than 80 J/msK.

[24] The display device according to any one of claims 11 to 23, wherein the first heat transfer means comprise a material containing any one selected from the group consisting of aluminum, iron, copper, magnesium, silver, graphite and diamond.

[25] The display device according to any one of claims 1 to 24, wherein said display panel is a plasma display panel.